

IN THE CLAIMS:

1. (Currently Amended) A pressure welding machine comprising:  
a frame;  
two mobile welding heads, which are movable on said frame along a feed axis;  
two adjusting units with feed drives ~~for~~ acting on said welding heads, said two adjusting units being mounted axially movably at said frame;  
a common adjusting element, said two adjusting units being connected to one another by said common adjusting element and each being supported by said common adjusting element; and  
an adjusting drive for driving said common adjusting element for positioning each of said two adjusting units, said adjusting units being connected ~~among one another~~ to said adjusting drive by means of said common adjusting element and being supported by said common adjusting element with forces exerted by each of said two adjusting units being transmitted to said common adjusting element to relieve load on said frame.

2. (Currently Amended) A pressure welding machine in accordance with claim 1, wherein said common adjusting element is designed as a continuous spindle with two threads, which are directed in opposite directions and are connected to nuts at said adjusting units.

3. (Previously Presented) A pressure welding machine in accordance with claim 1, wherein said threads are designed as motion threads, comprising ball or trapezoid threads.

4. (Previously Presented) A pressure welding machine in accordance with claim 1, wherein said spindle is arranged under said welding heads and said adjusting units in machine bed of said frame.

5. (Previously Presented) A pressure welding machine in accordance with claim 1, wherein said adjusting drive has a controllable motor comprising an electric motor, for driving said spindle.

6. (Previously Presented) A pressure welding machine in accordance with claim 1, wherein said frame has a carriage guide for the positive-locking mounting and guiding of travel carriages of the welding heads and said adjusting units .

7. (Previously Presented) A pressure welding machine in accordance with wherein claim 6, further comprising a mobile central clamping device for a central workpiece, which is mounted movably at said carriage guide and guided between said welding heads.

8. (Previously Presented) A pressure welding machine in accordance with wherein claim 7, wherein said central clamping device has two spaced workpiece holders, which have holder carriages mounted movably at said carriage guide.

9. (Previously Presented) A pressure welding machine in accordance with wherein

claim 1, wherein said workpiece holders are connected to respective associated adjusting unit by a carriage adjuster.

10. (Previously Presented) A pressure welding machine in accordance with wherein claim 9, wherein said carriage adjusters have a carrier and a spring for relative evading motions at the connection point with said workpiece holder.

11. (Previously Presented) A pressure welding machine in accordance with wherein claim 1, further comprising a measuring means for measuring the true feeds and the pure workpiece shortening without elastic deformation.

12. (Previously Presented) A pressure welding machine in accordance with wherein claim 11, wherein said measuring means has at least one measuring unit arranged between a workpiece holder and said associated welding head .

13. (Previously Presented) A pressure welding machine in accordance with wherein claim 12, wherein said measuring unit has a scale and a measuring head, which are arranged movably in relation to one another at said workpiece holder and at said associated welding head .

14. (Previously Presented) A pressure welding machine in accordance with wherein

claim 11, wherein said measuring means has a central measuring unit between said workpiece holders and/or said welding heads .

15. (Currently Amended) A pressure welding machine in accordance with claim 1, ~~further comprises~~ wherein said pressure welding machine comprises a friction welding machine ~~or as a machine for welding with moving arc~~ with each of said welding heads having a rotary drive for rotating a corresponding workpiece in relation to said central workpiece for friction welding.

16. (Currently Amended) A method for pressure welding a plurality of said workpieces along a ~~preferably~~ common feed axis, the method comprising:

providing a pressure welding machine with a frame[[],];

providing two said welding heads movable on said frame along a feed axis, ~~and;~~

providing two said adjusting units with feed drives for driving said welding heads;

moving said outer workpieces relative to one another by said two adjusting units mounted axially movably at said frame and applying pressure welding forces from said adjusting units to respective said welding heads;

connecting said two adjusting units to one another by a common adjusting element with an adjusting drive for driving said common adjusting element for positioning each of said two adjusting units; and

mutually supporting said adjusting units in an adjustable manner with the common

adjusting element while absorbing the pressure welding forces at the common adjusting element with the the common adjusting element and supported adjusting units forming [[in]]

15 a closed system of forces.

17. (Previously Presented) A method in accordance with claim 16, wherein said adjusting units and a central clamping device are positioned simultaneously and synchronously for a central workpiece.

18. (Previously Presented) A method in accordance with claim 17, wherein the true feeds and the workpiece shortenings are measured during pressure welding without the elastic deformations of said central workpiece that occur during upsetting.

19. (New) A method in accordance with claim 16, wherein said pressure welding machine comprises a friction welding machine with each of said welding heads having a rotary drive for rotating a corresponding workpiece in relation to said central workpiece for friction welding.

20. (New) A method in accordance with claim 16, wherein said pressure welding machine comprises a machine for welding with moving arc with an arc unit arranged at at least one of the welding heads and at the central clamping device and with a coil for deflecting the arc.

21. (New) A pressure welding machine in accordance with claim 1, wherein said pressure welding machine comprises a machine for welding with moving arc with an arc unit arranged at at least one of the welding heads and at the central clamping device and with a coil for deflecting the arc.

22. (New) A pressure welding machine comprising:

a frame;

a first side mobile welding head movably mounted on said frame for movement along a feed axis;

a second side mobile welding head movably mounted on said frame for movement along said feed axis;

a first side adjusting unit with a first side feed drive acting on said first side mobile welding head with resulting upsetting forces first side adjusting unit, said first side adjusting unit being mounted axially movably at said frame;

a second side adjusting unit with a second side feed drive acting on said first side mobile welding head with resulting upsetting forces at said second side adjusting unit, said second side adjusting unit being mounted axially movably at said frame;

a common adjusting element, said two adjusting units being connected to one another by said common adjusting element and each being supported by said common adjusting element with resulting upsetting forces at said second side adjusting unit transmitted from said

first side adjusting unit to said common adjusting element and with resulting upsetting forces at said second side adjusting unit transmitted from said second side adjusting unit to said common adjusting element to provide a closed frictional connection between said first side adjusting unit and said second side adjusting unit to relieve load applied by said first side adjusting unit and said second side adjusting unit on said frame; and

an adjusting drive for driving said common adjusting element for positioning each of said two adjusting units.

23. (New) A pressure welding machine in accordance with claim 22, further comprising:

a travel carriage associated with each of said welding heads and said adjusting units; and

a carriage guide for the positive-locking mounting and guiding of said travel carriages of the welding heads and said adjusting units, wherein said common adjusting element comprises a continuous single part spindle with two threads, said two threads being directed in opposite directions and with nuts engaging said threads, each of said nuts being connected to a respective one of said first adjusting unit and said second adjusting unit, wherein said threads are motion threads comprising ball or trapezoid threads for moving each nut along said spindle upon said adjusting drive driving said spindle in rotation with rotation of said spindle moving said first adjusting unit and said second adjusting unit along said frame.